

(Group 1 – Alkali metals)

Q1. (2018)

any **two** from:

- iron has a high(er) melting / boiling point
- iron is dense(r)
- iron is hard(er)

- iron is strong(er)
- iron is less reactive

- iron has ions with different charges
- iron forms coloured compounds
- iron can be a catalyst

Q2. (2019)

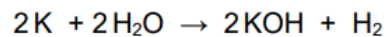
- flame
- (white) solid forms
- colour of gas / chlorine disappears / fades

Q3. (2021)

any **two** from:

- (potassium) floats
- (potassium) melts
- (potassium) moves around
- potassium becomes smaller
- (lilac) flame
- effervescence

Q4. (2021)



Q5. (2021)

reactivity increases (going down the group)

(because) the outer electron / shell is further from the nucleus

(so) there is less attraction between the nucleus and the outer electron / shell

(so) the atom loses an electron more easily

Q6. (2022)

any **two** from:
(Group 1 elements)

- have lower melting / boiling points
- have lower densities
- are less strong
- are softer

Q7. a). (2022)

any **one** from:

- more vigorous bubbling (for rubidium)
- bigger / brighter flame (for rubidium)

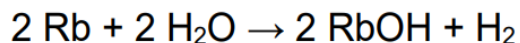
Q7. b). (2022)

(rubidium's) outer shell /
electron is further from the
nucleus

(so) there is less (electrostatic)
attraction between the nucleus
and the outer electron (in
rubidium)

(so) the (outer) electron (in
rubidium) is more easily lost

Q7. c). (2022)



Q8. (2024)

(similarity)
both have one outer (shell)
electron

(difference)
sodium has 3 shells but
potassium has 4 shells

Q9. (2024)

any **two** from:

- effervescence / bubbles /
fizzing
- (potassium) floats
- (potassium) moves around
- (potassium) becomes smaller
- (potassium) melts
- flame
- explosion